



# Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	23,199	2.2% ▼
Open Interest (OI)	2,38,88,410	9.9% ▲
Change in OI (abs)	2,38,88,410	21,44,285 ▲
Premium / Discount (Abs)	48	41 ▼
<b>Inference</b>	<b>Short Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	53,923	2.6% ▼
Open interest (OI)	32,19,360	4.8% ▲
Change in OI (abs)	32,19,360	1,47,420 ▲
Premium / Discount (Abs)	165	104 ▼
<b>Inference</b>	<b>Short Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	22.64	1.12 ▲
Nifty ATM IV (%)	25.27	2.82 ▲
Bank Nifty ATM IV (%)	27.70	3.42 ▲
PCR (Nifty)	0.75	0.11 ▼
PCR (Bank Nifty)	0.76	0.03 ▼

The FII Long Ratio in Index Futures **Drop** to 9.9%, **down** from 10.6 % in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MUTHOOTFIN	40,02,075	1.6%	3333.5	2.4%
NHPC	7,76,76,800	1.2%	75.25	0.3%
PHOENIXLTD	41,61,150	0.6%	1566.4	0.3%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
LT	1,68,72,625	15.6%	3449.4	-7.6%
SUPREMEIND	21,54,250	11.2%	3883.3	-3.6%
VOLTAS	1,19,09,250	10.1%	1399.3	-3.2%
BHARATFORG	73,08,000	9.5%	1675.6	-6.1%
M&M	2,02,74,800	8.7%	2941	-3.4%

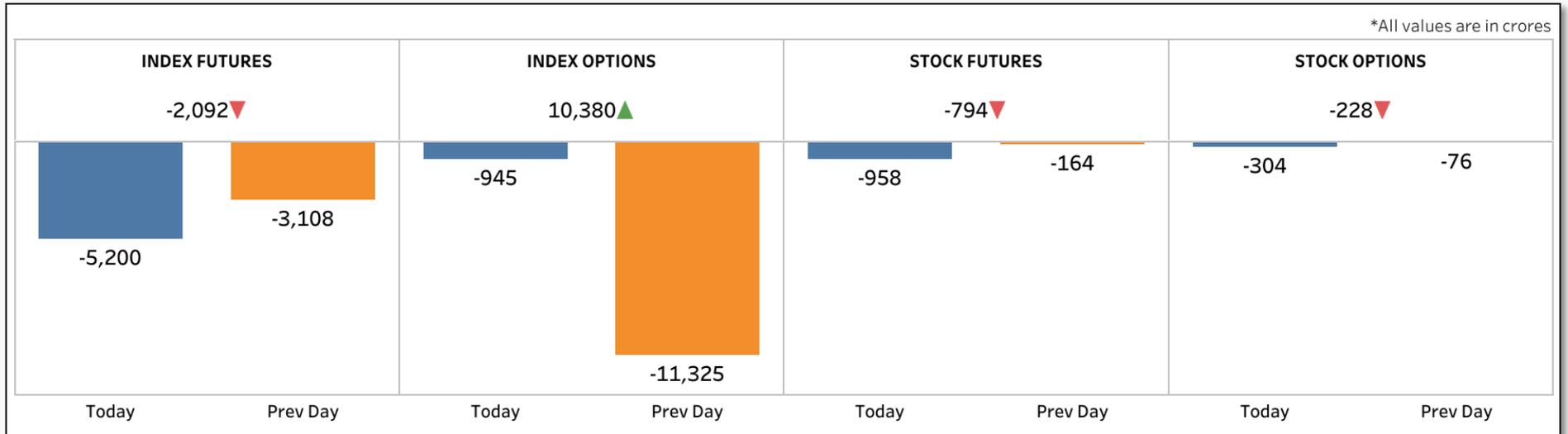
Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
SYNGENE	79,75,000	-7.8%	421.2	4.1%
BRITANNIA	26,98,375	-5.1%	5808	0.3%
PRESTIGE	55,46,700	-3.9%	1257.8	0.1%
ANGELONE	3,93,42,500	-1.5%	215.65	0.9%
TATACONSUM	1,32,30,250	-1.1%	1083.7	2.1%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
TIINDIA	29,34,200	-6.1%	2461.2	-3.5%
PFC	6,37,70,200	-5.2%	402.15	-3.1%
OIL	2,32,89,000	-4.8%	470.9	-1.5%
NUVAMA	21,38,000	-4.7%	1162	-2.2%
HAL	99,77,400	-4.1%	3913.7	-2.6%

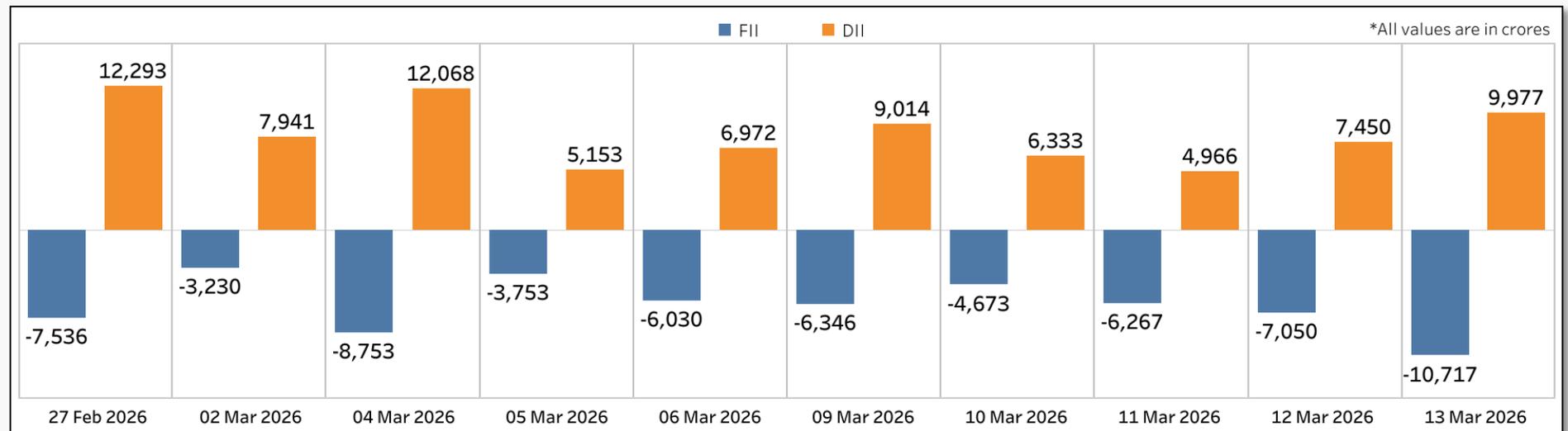
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix



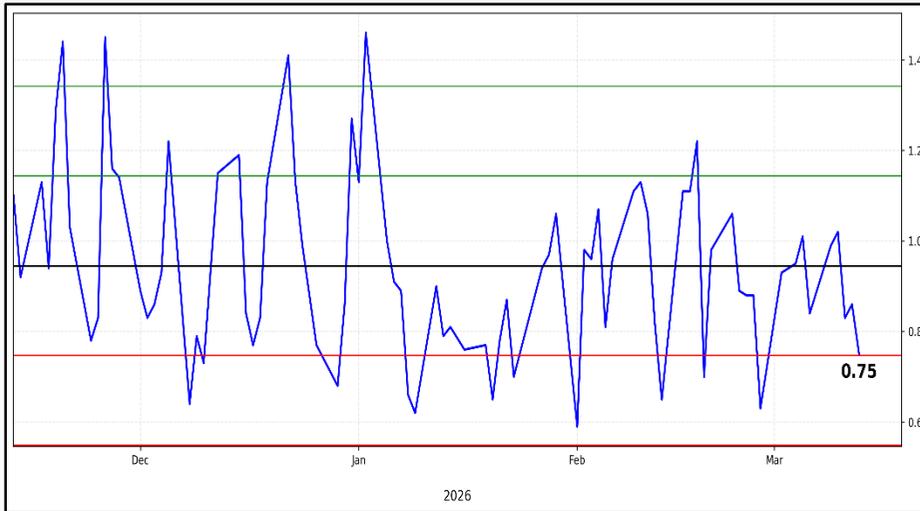
## Daily Net Open Interest Change



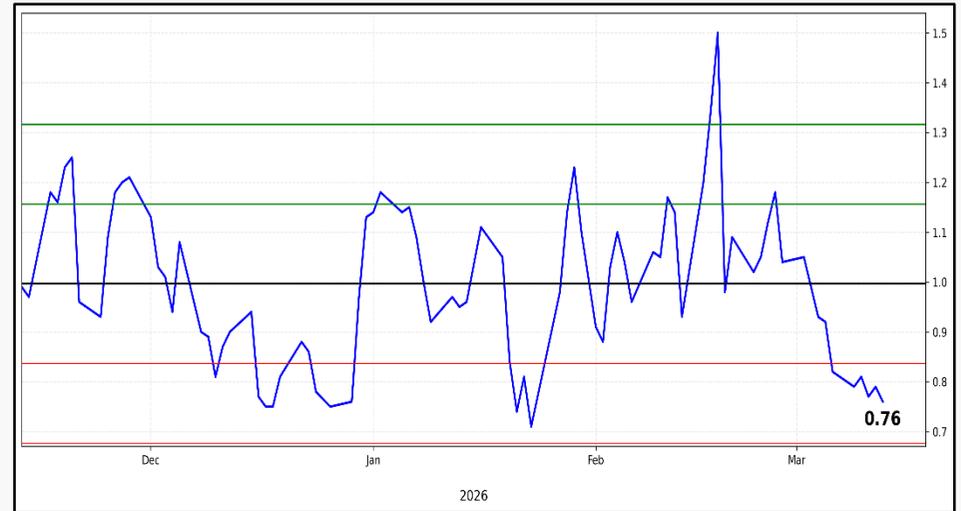
## DII and FII Daily Cash Market Flows



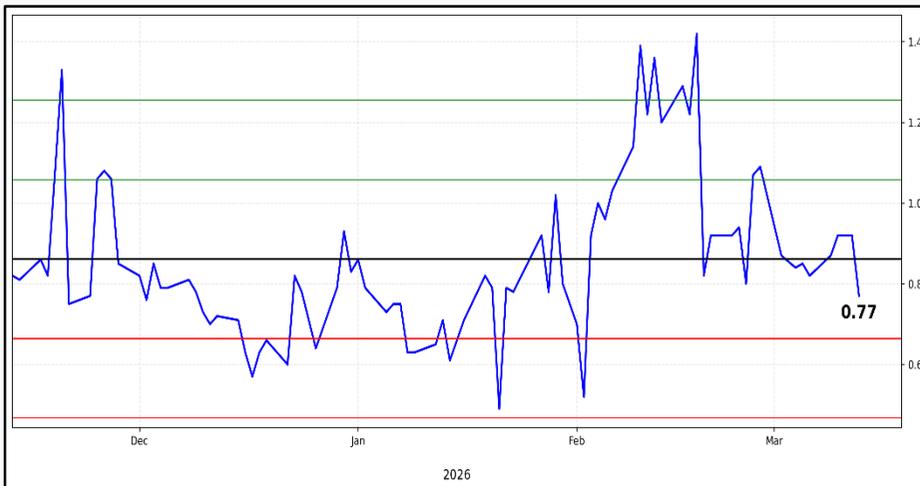
### Nifty



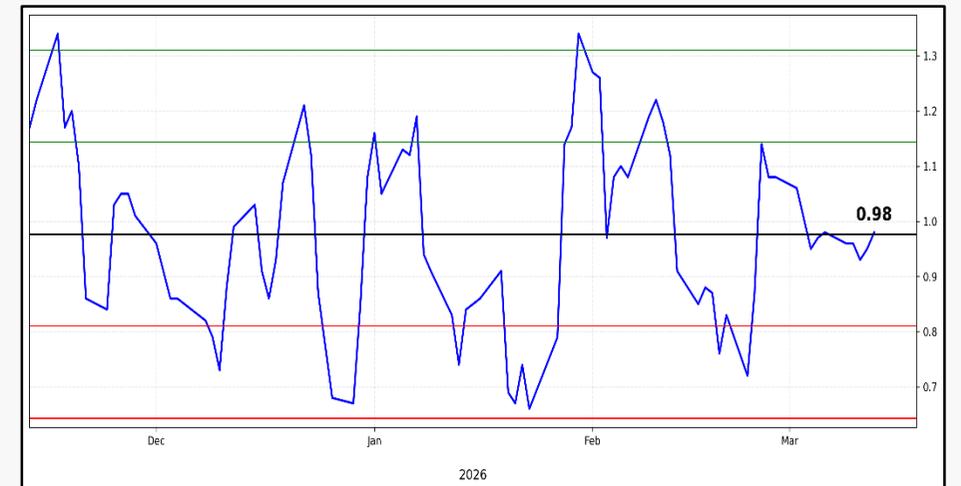
### Bank Nifty



### Fin Nifty



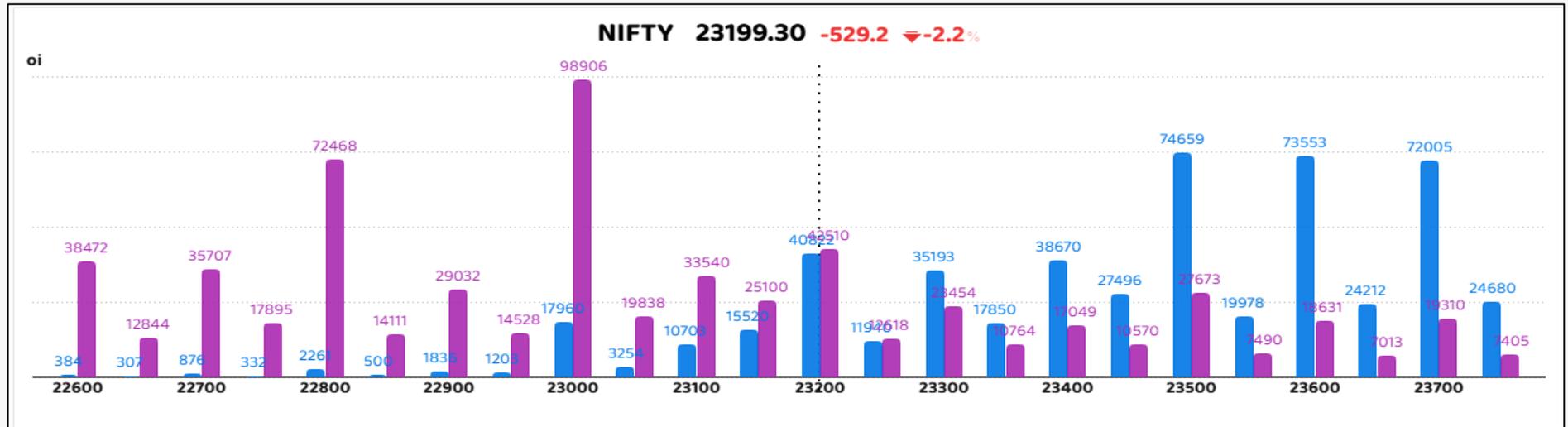
### Midcap Select Nifty



On the day immediately post expiration, PCR values will differ due to the way open interest data for the expired series is treated for the PCR calculation

## Positioning Stack by Strike (Nifty Current Week Expiry & BankNifty Monthly Expiry)

Call ■ Put ■



For Nifty, the 23,500 Call and 23,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 55,000 Call and the 54,000 Put saw the most amount of open interest.

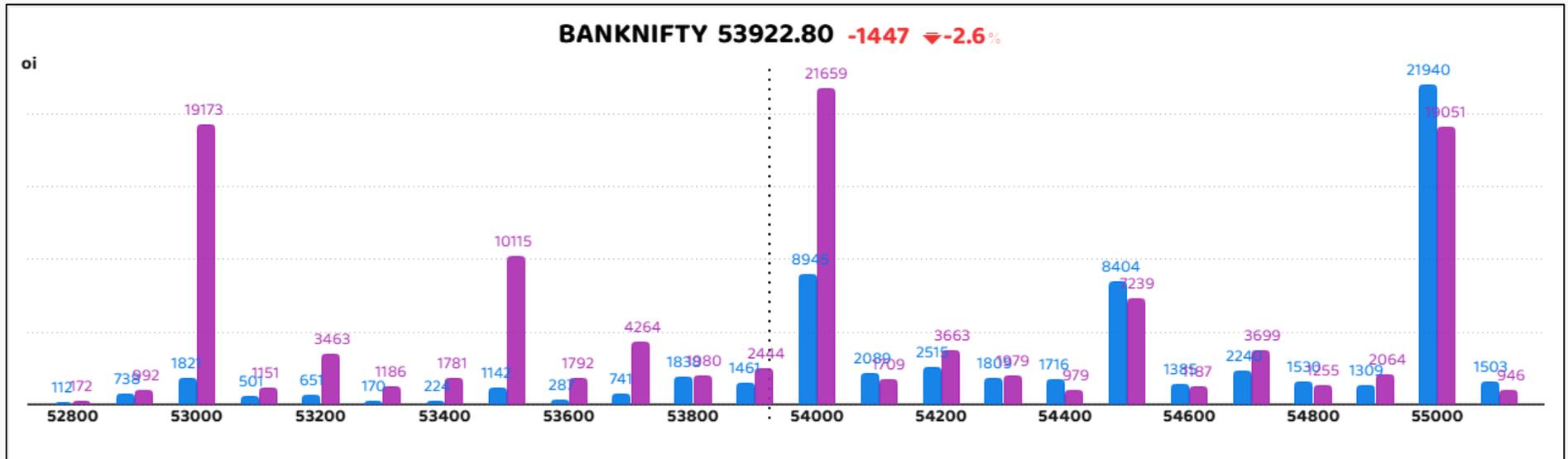
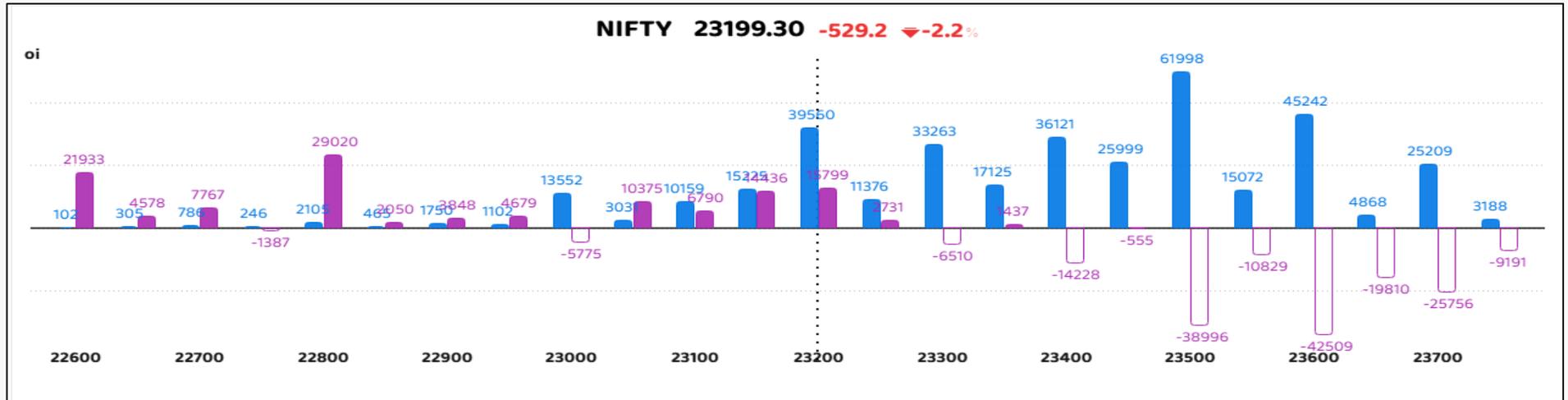


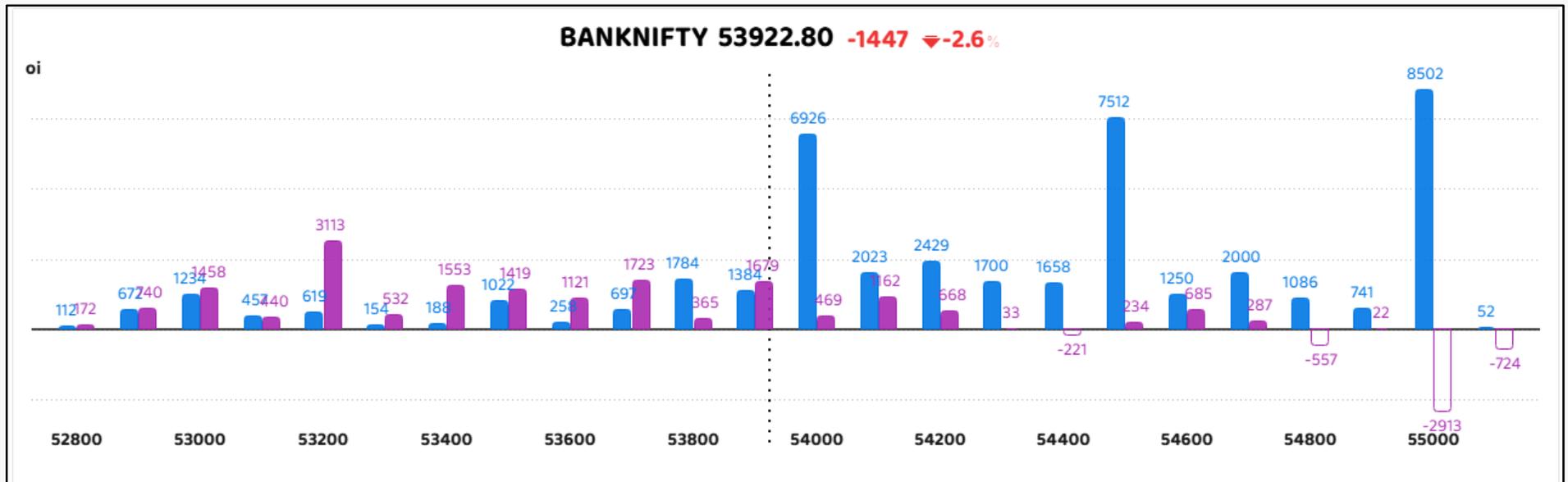
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

## Open Interest Change (Nifty Current Week Expiry & BankNifty Monthly Expiry)

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23,500 Call and the 23,600 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,000 Call & the 53,200 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HDFC BANK LTD	817.0	-1.9	29.3	29.3	1.5	100.0
HINDUSTAN UNILEV	2,160.0	1.1	25.7	25.7	0.8	100.0
LARSEN & TOUBRO	3,439.0	-7.5	43.5	43.5	14.2	100.0
BAJAJ FINANCE LT	855.1	-0.9	36.2	36.2	12.6	100.0
ULTRATECH CEMENT	10,616.0	-4.3	35.3	35.3	14.1	100.0

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
INFOSYS LTD	1,248.3	-1.4	4.1	60.8	1.7	4.2
NTPC LTD	384.5	-1.6	25.6	116.6	14.9	10.5
RBL BANK LTD	294.8	-1.7	22.3	71.1	10.6	19.4
NMDC LTD	78.6	-2.8	39.6	94.2	19.8	26.7
GAIL INDIA LTD	147.8	-3.0	39.2	91.4	19.4	27.6

### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
HDFC BANK LTD	817.0	-1.9	29.3	29.3	1.5	100.0
BAJAJ FINANCE LT	855.1	-0.9	36.2	36.2	12.6	100.0
HINDUSTAN UNILEV	2,160.0	1.1	25.7	25.7	0.8	100.0
LARSEN & TOUBRO	3,439.0	-7.5	43.5	43.5	14.2	100.0
ULTRATECH CEMENT	10,616.0	-4.3	35.3	35.3	14.1	100.0

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INFOSYS LTD	1,248.3	-1.4	4.1	60.8	1.7	1.7
RBL BANK LTD	294.8	-1.7	22.3	71.1	10.6	11.0
ICICI LOMBARD GE	1,837.1	-1.0	22.1	38.2	3.2	34.1
LIC INSURANCE CO	772.7	-3.0	23.2	40.4	16.8	42.4
SUPREME INDS LTD	3,886.5	-3.9	31.8	49.9	17.6	44.5

## Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
NAUKRI	952.4	-0.3	10,041	2,417	4.2
ADANIENSOL	992.3	-1.2	24,758	6,465	3.8
POWERGRID	301.0	-0.9	58,744	15,580	3.8
COLPAL	1,957.2	-0.9	23,996	6,369	3.8
TATAELXSI	4,255.0	-1.7	10,950	2,940	3.7

## Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
ASIANPAINT	2,196.8	-1.1	12,304	17,670	1.4
SONACOMS	486.0	-4.8	3,478	4,726	1.4
PIIND	2,896.2	-1.9	9,237	12,066	1.3
POLICYBZR	1,446.0	-1.1	1,857	2,279	1.2
JINDALSTEL	1,143.3	-6.7	15,102	18,094	1.2

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
AMBER	6,446.2	-7.0	13,370	11,733	100.0
FEDERALBNK	263.0	-2.7	13,723	12,475	100.0
CIPLA	1,314.7	-0.7	22,421	22,136	100.0
CHOLAFIN	1,514.0	-0.8	6,929	6,741	100.0
COFORGE	1,089.7	-1.6	37,948	36,326	100.0

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
BANKINDIA	150.2	-3.0	4,379	4,316	100.0
HDFCBANK	817.0	-1.9	83,857	82,603	100.0
COALINDIA	467.0	-0.7	21,202	20,299	100.0
BOSCHLTD	30,185.2	-3.6	5,703	5,676	100.0
LTM	4,206.4	-2.7	6,117	5,981	100.0

**Call Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
ADANIENSOL	992.3	-1.2	24,758	13,737	100.0
DMART	3,834.3	-3.0	87,199	68,495	100.0
TATACONSUM	1,083.6	2.4	26,377	12,517	100.0
LT	3,439.1	-7.5	1,74,890	1,50,972	100.0
NHPC	75.0	0.3	12,839	10,871	100.0

**Put Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
BLUESTARCO	1,833.2	-6.2	11,538	9,466	100.0
DMART	3,834.3	-3.0	26,906	16,891	100.0
HINDALCO	910.0	-6.2	75,006	70,714	100.0
JINDALSTEL	1,143.3	-6.7	18,094	12,524	100.0
LAURUSLABS	1,003.4	-4.1	16,992	10,396	100.0

**Call Open Interest to 20-day Average**

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
INDIGO	4,158.2	-2.2	55,426	26,666	2.1
LT	3,439.1	-7.5	96,186	51,116	1.9
BAJAJFINSV	1,738.0	-1.9	40,520	22,114	1.8
AMBER	6,446.2	-7.0	13,370	7,670	1.7
KEI	4,157.9	-4.0	6,089	3,509	1.7

**Put Open Interest to 20-day Average**

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
BOSCHLTD	30,185.2	-3.6	5,703	3,216	1.8
COLPAL	1,957.2	-0.9	11,082	6,619	1.7
RBLBANK	294.8	-1.7	9,592	5,767	1.7
PGEL	502.2	-5.6	7,430	4,632	1.6
SHREECEM	22,964.9	-2.3	2,627	1,753	1.5

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
SYNGENE	420.8	4.1	47,158	5,605	8.4
DMART	3,834.3	-3.0	87,199	13,299	6.6
TATACONSUM	1,083.6	2.4	26,377	4,615	5.7
ADANIENSOL	992.3	-1.2	24,758	5,997	4.1
BRITANNIA	5,808.5	0.4	32,714	10,370	3.2

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
SYNGENE	420.8	4.1	15,187	2,127	7.1
PGEL	502.2	-5.6	44,291	7,574	5.8
DMART	3,834.3	-3.0	26,906	5,760	4.7
BRITANNIA	5,808.5	0.4	24,662	5,653	4.4
BLUESTARCO	1,833.2	-6.2	11,538	2,952	3.9

## Nifty 50 Constituents Open Interest (OI) Dashboard – Support / Resistance

Distance of Strike With Highest Open Interest From Current Market Price (%)

Stock Name	CE STRIKE	CE OI	%Away	CMP	PE Strike	PE OI	%Away	Stock Name	CE STRIKE	CE OI	%Away	CMP	PE Strike	PE OI	%Away
ADANIANT	2200	1291620	12.2%	1961	2200	788568	12.2%	JIOFIN	260	6448400	10.5%	235	260	3228900	10.5%
ADANIPTS	1500	1219325	10.0%	1363	1500	803225	10.0%	JSWSTEEL	1300	992925	16.1%	1119	1100	329400	-1.7%
APOLLOHOSP	7700	120500	2.0%	7550	7000	128250	-7.3%	KOTAKBANK	400	3056000	9.0%	367	400	2304000	9.0%
ASIANPAINT	2500	566250	13.8%	2197	2000	726750	-9.0%	LT	4000	1682100	16.3%	3439	3500	454650	1.8%
AXISBANK	1300	2655625	8.6%	1197	1400	706250	16.9%	M&M	3500	714000	19.4%	2931	3400	372000	16.0%
BAJAJ-AUTO	10500	201600	18.3%	8875	9000	89175	1.4%	MARUTI	15000	273650	19.1%	12591	12000	67600	-4.7%
BAJAJFINSV	1840	1691750	5.9%	1738	1920	430000	10.5%	MAXHEALTH	1120	347025	13.1%	990	1020	234675	3.0%
BAJFINANCE	1000	2225250	17.0%	855	960	1369500	12.3%	NESTLEIND	1300	439000	8.1%	1202	1200	161500	-0.2%
BEL	500	6592050	13.8%	439	450	2882775	2.4%	NTPC	400	15024000	4.0%	384	380	5427000	-1.2%
BHARTIARTL	2000	3429975	10.9%	1803	1800	1311475	-0.2%	ONGC	300	13909500	13.6%	264	265	4295250	0.3%
CIPLA	1350	1767750	2.7%	1315	1260	396375	-4.2%	POWERGRID	310	7018600	3.0%	301	300	2616300	-0.3%
COALINDIA	500	3230550	7.1%	467	430	2689200	-7.9%	RELIANCE	1500	9212500	8.6%	1381	1400	2965500	1.4%
DRREDDY	1350	1983750	4.5%	1292	1300	740000	0.6%	SBILIFE	2100	700125	10.3%	1904	1900	232875	-0.2%
EICHERMOT	8000	323600	18.7%	6741	7500	117400	11.3%	SBIN	1200	5428500	14.6%	1047	1000	2422500	-4.5%
ETERNAL	250	11751550	15.9%	216	220	5793325	2.0%	SHRIRAMFIN	1050	1675575	4.6%	1004	1000	2298450	-0.4%
GRASIM	2860	356750	11.3%	2569	2660	89500	3.6%	SUNPHARMA	1800	2288300	-0.1%	1802	1800	740600	-0.1%
HCLTECH	1500	971250	13.2%	1325	1300	430500	-1.9%	TATACONSUM	1300	622600	20.0%	1084	1100	222200	1.5%
HDFCBANK	900	9717950	10.2%	817	800	3322000	-2.1%	TMPV	400	5668000	27.3%	314	290	3265600	-7.7%
HDFCLIFE	750	2005300	19.9%	626	620	546700	-0.9%	TATASTEEL	220	15845500	19.9%	184	200	7221500	9.0%
HINDALCO	1000	1591100	9.9%	910	850	1140300	-6.6%	TCS	2700	1773625	12.0%	2411	2600	740425	7.9%
HINDUNILVR	2400	954300	11.1%	2160	2100	383700	-2.8%	TECHM	1440	1704000	8.0%	1333	1340	1582800	0.5%
ICICIBANK	1400	4671800	11.6%	1255	1400	2375800	11.6%	TITAN	4760	355075	16.9%	4073	4000	220850	-1.8%
INDIGO	4400	1330500	5.8%	4158	4000	427650	-3.8%	TRENT	4000	636600	14.7%	3488	3500	119800	0.3%
INFY	1400	5398800	12.2%	1248	1280	2344800	2.5%	ULTRACEMCO	13000	98450	22.5%	10616	11500	32650	8.3%
ITC	320	14651200	6.2%	301	320	3516800	6.2%	WIPRO	220	10704000	11.3%	198	200	5454000	1.2%

If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green

If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike will be colored red

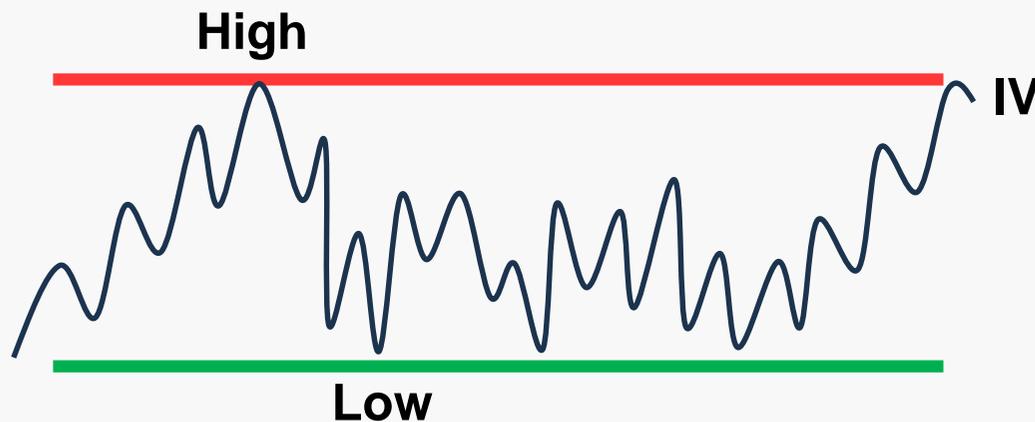
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating existing positions**
- **Long build up:** Prices increase with a rise in open interest and is considered **bullish**
- **Long liquidation:** Existing longs liquidate their positions and open interest also falls; **moderately bearish**
- **Short build up:** Prices drop with a rise in open interest, and this is considered **bearish**
- **Short covering:** Existing shorts cover their positions, and open interest drop; this is **moderately bullish**
- PCR goes up when 1) both put and call open interest go up, but puts rise faster, or 2) both put and call open interest go down, but calls fall faster or, 3) when puts go up and calls go down
- Generally, a **rising PCR is bearish**, but when it reaches an extremely **high** reading, it means people are likely to take contrarian bets, i.e., they are likely to turn **bullish**
- PCR goes down when 1) both put and call open interest go up, but calls rise faster, or 2) both put and call open interest go down, but puts fall faster or, 3) when puts go down and calls go up
- Typically, a **falling PCR is bullish**, but when it reaches an extremely **low** reading, it means people are likely to take contrarian bets, i.e., they are likely to turn **bearish**

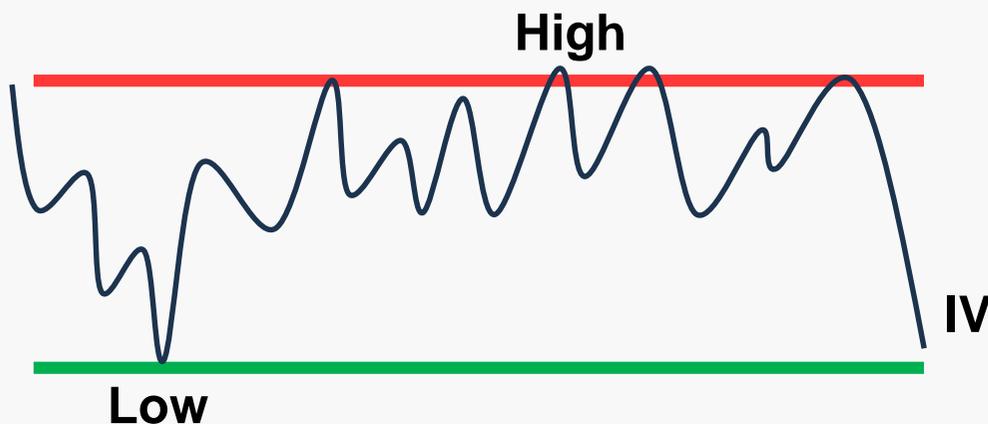
*\*ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **Volume:** Number of contracts traded for the day. If A bought 10 calls & B sold 10 calls, the volume for the day is 10 contracts
- **Open Interest:** The number of derivatives contracts that are open (have not been closed out). If A bought 10 calls, B bought another 10 calls and C sold 20 calls, then the open interest for the day is 20 contracts
- **Total open interest:** Total of all open positions for all available expirations. It is the sum of all outstanding long positions OR short positions. This is because the total number of long positions must equal the total number of short positions
- **Premium:** When the front-month futures are more expensive than the cash market price. For instance, if Nifty futures (first month contract) are at 25,500 when the cash Nifty is at 25,450, the premium is 50 points
- **Discount:** When the front-month futures are cheaper than the cash market price. For instance, if Tata Steel futures (first month contract) are at 160 when the stock is trading at 162 in the cash market, the discount is 2 points
- **At-the-Money (ATM):** When the strike price of an option is the same as the spot price, the option is called an ATM option
- **Implied Volatility (IV):** Measure of how much a stock is expected to move in the future (in either direction)
- **Put-Call Ratio (PCR):** Ratio of total number of outstanding puts to total number of calls outstanding. If this ratio is more (less) than one, it means more puts (calls) are open relative to calls (puts)
- **Derivatives market participants:** Foreign Institutional Investors (FIIs), Domestic Institutional Investors (DIIs), proprietary traders and Retail investors
- **Derivatives Instruments:** Index options, index futures, stock options, stock futures
- **Expirations covered:** Index options (weekly, monthly), stock options, stock futures and index futures (monthly)
- For pages 7 to 11, “Last px” refers to the closing price of the cash market ticker
- **Source(s):** [www.nseindia.com](http://www.nseindia.com), Bloomberg, MyFnO

- **Strike concentration:** Visual representation of how many calls and puts are outstanding at each strike in the vicinity of the current underlying price. The strike with the highest call open interest is considered as resistance, while the put strike with the highest number of outstanding positions is considered as support
- **Shifting concentration:** Strikes with highest call and put concentration are dynamic in nature and keep changing as per movements in the markets
- **Implied Volatility Rank (IVR):** Measure of how expensive or cheap the IV of an ATM option is, relative to its 12-month history. The reading oscillates between 0 and 100

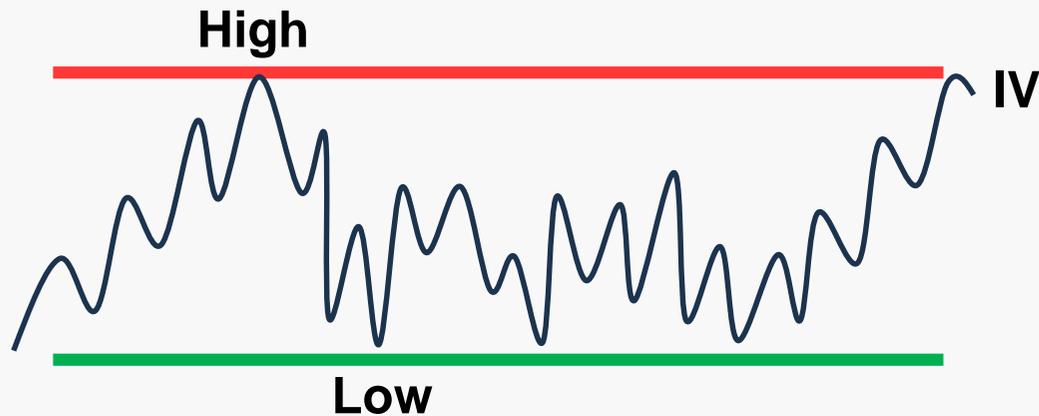


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

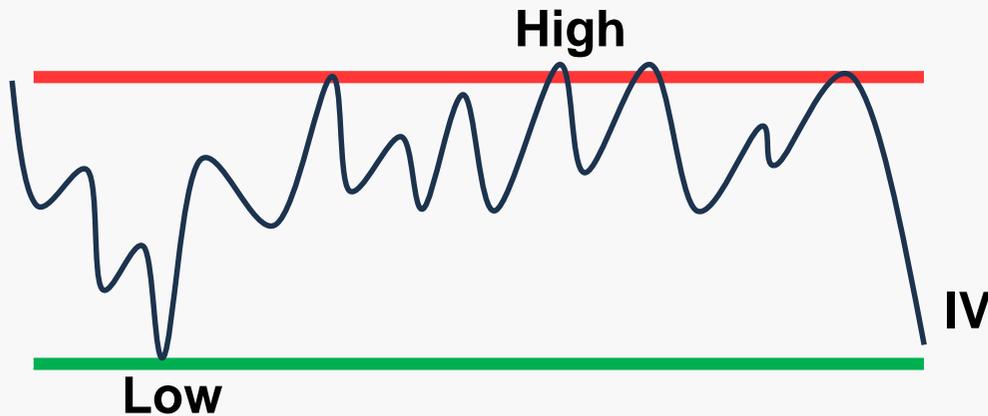


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **Implied Volatility Percentile (IVP):** Measures the number of days IV has been below the current IV in the last 252 trading days. The reading moves between 0 and 100.



In the chart to the left, one can see that the bulk of the time the IV has been below its current level. In this case, the IVP will be close to 100. An IVP of 100 means that 100% of the time IV has been below its current reading in the last one year.



Notice that IV has mostly traded at the high end of its one-year range, and there have been very few values below the current IV. In such a scenario, the IVP is going to be close to 0. An IVP of say, 5, means that IV has been below the current IV only 5% of the time in the last 252 trading sessions.

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